IN THE CLAIMS:

Please cancel claims 1, 5, 16, 31, and 35 without prejudice or disclaimer as to the subject matter thereof.

1. (canceled)

2. (currently amended) ~~A method according to claim 1,~~ A cardiac monitoring method, comprising:

deploying at least two cardiac wall motion sensors into operative communication with spaced-apart portions of myocardial tissue;

receiving a signal from each of the at least two cardiac wall motion sensors;

obtaining a sensor signal output segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors;

filtering the sensor signal output segment of each of the at least two cardiac wall motion sensors;

locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors;

comparing the relative temporal location of the initial fiducial points of the filtered sensor signals of each of the at least two cardiac wall motion sensors; and

generating a metric of ventricular synchrony using the time difference between the relative temporal location of the initial fiducial points for each of the filtered sensor signal of the at least two cardiac wall motion sensors,

wherein deploying one of the at least two cardiac wall motion sensors comprises deploying an accelerometer sensor.

3. (currently amended) A method according to claim 2, wherein deploying the accelerometer sensor comprises deploying a multiple axis accelerometer.

4. (currently amended) ~~A method according to claim 1,~~ A cardiac monitoring method, comprising:

deploying at least two cardiac wall motion sensors into operative communication with spaced-apart portions of myocardial tissue;

receiving a signal from each of the at least two cardiac wall motion sensors;

obtaining a sensor signal output segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors;

filtering the sensor signal output segment of each of the at least two cardiac wall motion sensors;

locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors;

comparing the relative temporal location of the initial fiducial points of the filtered sensor signals of each of the at least two cardiac wall motion sensors; and

generating a metric of ventricular synchrony using the time difference between the relative temporal location of the initial fiducial points for each of the filtered sensor signal of the at least two cardiac wall motion sensors,

wherein deploying one of the at least two cardiac wall motion sensors comprises deploying a tensiometric sensor.

5. (canceled)

6. (currently amended) A method according to claim 2~~4~~, wherein the step of obtaining a sensor signal segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors, further comprises:

initiating the predetermined sensing window beginning with a sensed cardiac event.

7. (original) A method according to claim 6, wherein the sensed cardiac event comprises one of the group:

a sensed P-wave, a sensed-Q wave, a sensed R-wave, a sensed T-wave, an atrial pacing stimulus, a ventricular pacing stimulus.

8. (currently amended) ~~A method according to claim 1,~~ A cardiac monitoring method, comprising:

deploying at least two cardiac wall motion sensors into operative communication with spaced-apart portions of myocardial tissue;

receiving a signal from each of the at least two cardiac wall motion sensors;

obtaining a sensor signal output segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors;

filtering the sensor signal output segment of each of the at least two cardiac wall motion sensors;

locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors;

comparing the relative temporal location of the initial fiducial points of the filtered sensor signals of each of the at least two cardiac wall motion sensors; and

generating a metric of ventricular synchrony using the time difference between the relative temporal location of the initial fiducial points for each of the filtered sensor signal of the at least two cardiac wall motion sensors,

wherein the step of obtaining a sensor signal segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors, further comprises:

initiating the predetermined sensing window upon one of the beginning or the expiration of a pacing therapy timing interval.

9. (original) A method according to claim 8, wherein the pacing therapy timing interval comprises one of:

an A-V interval, a V-A interval, a sensed A-V (SAV) interval, a paced A-V (PAV) interval, a post-ventricular atrial blanking (PVAB) interval, a post-ventricular atrial refractory period (PVARP).

10. (currently amended) A method according to claim 24, wherein the step of locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors further comprises processing the output signal segments by one of:

locating a maximum amplitude, locating a minimum amplitude, locating a maximum positive time derivative, locating a maximum negative time derivative, locating a threshold-crossing.

11. (original) A method according to claim 10, wherein locating the fiducial point comprises locating an initial occurrence of the fiducial point.

12. (currently amended) A method according to claim 24, further comprising:

programming a revised V-V interval based at least in part on the metric of ventricular synchrony.

13. (currently amended) ~~A method according to claim 1,~~ A cardiac monitoring method, comprising:

deploying at least two cardiac wall motion sensors into operative communication with spaced-apart portions of myocardial tissue;

receiving a signal from each of the at least two cardiac wall motion sensors;

obtaining a sensor signal output segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors;

filtering the sensor signal output segment of each of the at least two cardiac wall motion sensors;

locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors;

comparing the relative temporal location of the initial fiducial points of the filtered sensor signals of each of the at least two cardiac wall motion sensors; and

generating a metric of ventricular synchrony using the time difference between the relative temporal location of the initial fiducial points for each of the filtered sensor signal of the at least two cardiac wall motion sensors.

wherein the step of obtaining the sensor signal output segment for the predetermined sensing window for each of the at least two cardiac wall motion sensors comprises:

obtaining the sensor signal output segment over at least two cardiac cycles.

14. (original) A method according to claim 13, wherein the at least two cardiac cycles comprise consecutive cardiac cycles.

15. (currently amended) A method according to claim 13~~12~~, further comprising:

averaging the sensor signal output segment.

16. (canceled)

17. (currently amended) ~~An apparatus according to claim 16,~~ A cardiac monitoring apparatus, comprising:

means for deploying at least two cardiac wall motion sensors into operative communication with spaced-apart portions of myocardial tissue;

means for receiving a signal from each of the at least two cardiac wall motion sensors;

means for obtaining a sensor signal output segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors;

means for filtering the sensor signal output segment of each of the at least two cardiac wall motion sensors;

means for locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors;

means for comparing the relative temporal location of the initial fiducial points of the filtered sensor signals of each of the at least two cardiac wall motion sensors; and

means for generating a metric of ventricular synchrony using the time difference between the relative temporal location of the initial fiducial points for each of the filtered sensor signal of the at least two cardiac wall motion sensors,

wherein one of the at least two cardiac wall motion sensors comprises an accelerometer sensor.

18. (original) An apparatus according to claim 17, wherein the accelerometer sensor comprises a multiple axis accelerometer.

19. (currently amended) An apparatus according to claim 17~~16~~, wherein one of the at least two cardiac wall motion sensors comprises a tensiometric sensor.

20. (currently amended) An apparatus according to claim 17~~16~~, wherein one of the at least two cardiac wall motion sensors comprises one of the group of: an acoustic sensor, a capacitive sensor, a strain gauge sensor, a piezoelectric-based sensor, an impedance-injection sensing circuit.

21. (currently amended) An apparatus according to claim 17~~16~~, wherein the means for obtaining a sensor signal segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors, further comprises:

means for initiating the predetermined sensing window beginning with a sensed cardiac event.

22. (original) An apparatus according to claim 21, wherein the sensed cardiac event comprises one of the group:

a sensed P-wave, a sensed-Q wave, a sensed R-wave, a sensed T-wave, an atrial pacing stimulus, a ventricular pacing stimulus.

23. (currently amended) An apparatus according to claim 17~~16~~, wherein the means for obtaining a sensor signal segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors, further comprises:

means for initiating the predetermined sensing window upon one of the beginning or the expiration of a pacing therapy timing interval.

24. (original) An apparatus according to claim 23, wherein the pacing therapy timing interval comprises one of:

an A-V interval, a V-A interval, a sensed A-V (SAV) interval, a paced A-V (PAV) interval, a post-ventricular atrial blanking (PVAB) interval, a post-ventricular atrial refractory period (PVARP).

25. (currently amended) An apparatus according to claim 17~~16~~, wherein the means for locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors further comprises means for processing the output signal segments by one of:

means for locating a maximum amplitude, means for locating a minimum amplitude, means for locating a maximum positive time derivative, means for

locating a maximum negative time derivative, means for locating a threshold-crossing.

26. (original) An apparatus according to claim 25, wherein the means for locating the fiducial point comprises means for locating an initial occurrence of the fiducial point.

27. (currently amended) An apparatus according to claim 1716, further comprising:

means for programming a revised V-V interval based at least in part on the metric of ventricular synchrony.

28. (currently amended) An apparatus according to claim 1716, wherein the means for obtaining the sensor signal output segment for the predetermined sensing window for each of the at least two cardiac wall motion sensors comprises:

means for obtaining the sensor signal output segment over at least two cardiac cycles.

29. (original) An apparatus according to claim 28, wherein the at least two cardiac cycles comprise consecutive cardiac cycles.

30. (currently amended) An apparatus according to claim 27, further comprising:

means for averaging the sensor signal output segment.

31. (canceled)

32. (currently amended) ~~A medium according to claim 31,~~ A computer readable medium for performing a method of monitoring cardiac synchrony, comprising:

instructions for receiving a signal from each of the at least two cardiac wall motion sensors;

instructions for obtaining a sensor signal output segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors;

instructions for filtering the sensor signal output segment of each of the at least two cardiac wall motion sensors;

instructions for locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors;

instructions for comparing the relative temporal location of the initial fiducial points of the filtered sensor signals of each of the at least two cardiac wall motion sensors; and

instructions for generating a metric of ventricular synchrony using the time difference between the relative temporal location of the initial fiducial points for each of the filtered sensor signal of the at least two cardiac wall motion sensors ,

wherein the instructions for receiving the signal from one of the at least two cardiac wall motion sensors comprises instructions for receiving the signal from an accelerometer sensor.

33. (currently amended) A medium according to claim 32, wherein the instructions for receiving the signal from the accelerometer sensor comprises instructions for receiving the signal from a multiple axis accelerometer.

34. (currently amended) ~~A medium according to claim 31,~~ A computer readable medium for performing a method of monitoring cardiac synchrony, comprising:

instructions for receiving a signal from each of the at least two cardiac wall motion sensors;

instructions for obtaining a sensor signal output segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors;

instructions for filtering the sensor signal output segment of each of the at least two cardiac wall motion sensors;

instructions for locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors;

instructions for comparing the relative temporal location of the initial fiducial points of the filtered sensor signals of each of the at least two cardiac wall motion sensors; and

instructions for generating a metric of ventricular synchrony using the time difference between the relative temporal location of the initial fiducial points for each of the filtered sensor signal of the at least two cardiac wall motion sensors.

wherein the instructions for receiving the signal from one of the at least two cardiac wall motion sensors comprises instructions for receiving the signal from a tensiometric sensor.

35. (canceled)

36. (currently amended) A medium according to claim 3234, wherein the instructions for obtaining a sensor signal segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors, further comprises:

instructions for initiating the predetermined sensing window beginning with a sensed cardiac event.

37. (original) A medium according to claim 36, wherein the sensed cardiac event comprises one of the group:

a sensed P-wave, a sensed-Q wave, a sensed R-wave, a sensed T-wave, an atrial pacing stimulus, a ventricular pacing stimulus.

38. (currently amended) A medium according to claim 3234, wherein the instructions for obtaining a sensor signal segment for a predetermined sensing window for each of the at least two cardiac wall motion sensors, further comprises:

instructions for initiating the predetermined sensing window upon one of the beginning or the expiration of a pacing therapy timing interval.

39. (original) A medium according to claim 38, wherein the pacing therapy timing interval comprises one of:

an A-V interval, a V-A interval, a sensed A-V (SAV) interval, a paced A-V (PAV) interval, a post-ventricular atrial blanking (PVAB) interval, a post-ventricular atrial refractory period (PVARP).

40. (currently amended) A medium according to claim 3234, wherein the instructions for locating an fiducial point for the filtered sensor signal output segments of each of the at least two cardiac wall motion sensors further comprises instructions for processing the output signal segments by one of:

instructions for locating a maximum amplitude, instructions for locating a minimum amplitude, instructions for locating a maximum positive time derivative, instructions for locating a maximum negative time derivative, instructions for locating a threshold-crossing.

41. (original) A medium according to claim 40, wherein the instructions for locating the fiducial point comprises instructions for locating an initial occurrence of the fiducial point.

42. (currently amended) A medium according to claim 3234, further comprising:

instructions for programming a revised V-V interval based at least in part on the metric of ventricular synchrony.

43. (currently amended) A medium according to claim 3234, wherein the instructions for obtaining the sensor signal output segment for the predetermined sensing window for each of the at least two cardiac wall motion sensors comprises:

instructions for obtaining the sensor signal output segment over at least two cardiac cycles.

44. (original) A medium according to claim 43, wherein the at least two cardiac cycles comprise consecutive cardiac cycles.

45. (original) A medium according to claim 42, further comprising:

averaging the sensor signal output segment.

46. (currently amended) A method according to claim 24, wherein the deploying step comprises deploying one of the at least two wall motion sensors to an epicardial location.

47. (currently amended) An apparatus according to claim 1746, wherein the means for deploying comprises means for deploying one of the at least two wall motion sensors to an epicardial location.